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Devoted to the interests and advancement of school health service and instruction.
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Vol. X FEBRUARY, 1940 No. 2

AN ADMINISTRATOR COGITATES HIS DENTAL HEALTH PROGRAM*

H. D. CHOPE, M.D.

Health Officer, Newton, Mass.

My following remarks are nothing more or less than the title indicates—a series of cogitations or thoughts about a dental health program. It should be clearly understood that what I have to say is limited to the population units of from 25,000 to 250,000 people. It is not my intention to discuss the Federal program, the 35 odd state dental programs now in operation, or large city programs which were so ably presented last year by Doctor Vaughn of Detroit. Neither can I comment on the program of dental health in the rural areas.

I am the health officer of a city of 72,000 people with about 14,000 school children, and consequently a very unimportant speck on the horizon of public health administration; but if you consider that my problems are also confronting 300 to 400 other public health officers, I hope that you will agree that it may be worth the fifteen or twenty minutes we have to open up some of the health officer's problems in the field of dental hygiene and examine them.

First, the administrator must decide—"Is a dental health program necessary in my community?" There probably is no community in the nation which can answer this question in the negative. It is perfectly true that the problem varies in intensity from state to state, from city to city, and even from school to school in the same city. But to my knowledge there is no group in this country which does not have an oral health problem. There are many competent surveys which amply prove this point, and sufficient statistics to confound the most able statistician. These I will waste no time quoting to you, for your presence at a meeting of the oral hygiene group is evidence that you are more than familiar with the extent of dental caries and other diseases of the mouth. Competent dental authorities tell us that at the present rate of correction we are only taking care of about one-sixth of the actual number of existing dental caries. Another point which I am going to waste no time expanding is that dental disease bears a very

* Read before Oral Health Group and American School Health Association, Pittsburgh, Pa., Oct. 18, 1939.

important relationship to general health. I am sure that we can agree that ipso facto this is a truism. So if the average health officer looks the facts in the face he must decide, and I hope you all agree, that dental defects are the most common physical defect in American school children, that the correction program is far behind the incidence rate, and that dental disease is without question detrimental to general well being of the individual.

Once it is determined that a dental problem exists in the community, the health officer must decide what he is going to do about it—and here is where the administrator gets into trouble. If he could start from scratch with a clean slate and organize his program, the difficulties might not be so great; but this is rarely the case. Usually some well meaning group—such as a women's club or a service club—has initiated a dental clinic which has eventually been willed to the official agency. Or some wise representative, feeling that he could legislate good health, has had a law passed requiring that local health departments provide dental service. To my way of thinking the dental clinic is a mere futile gesture towards the solution of the problem. Doctor Guy Milberry has estimated that if all the dentists now licensed in the United States were to drop all other work and do nothing but children's dentistry, it would take them a number of years, working eight hours a day, to correct the defects which now exist. The impracticability of such a program is obvious. The great error of public health administrators and public health dentists is that they have ever let a dental problem arise. It is difficult now, in the white heat of an emergency, to decide definitely what should be done, or, more important from the administrator's viewpoint, to obtain the funds to do what he feels might be necessary. But there is little use of spilling tears over the errors of our predecessors. We have the problem, and we have dental clinics, and private practitioners, entirely unable to cope with the volume of work to be done.

So, on a little further investigation, the administrator, in his ignorance of dental technique, but with the common sense the good Lord gave him to study statistical data, concludes that his present dental clinic, even if reorganized and provided with the most modern equipment, is not going to meet the health problem with which he is faced. He, therefore, falls back on his fundamental techniques which he has learned during his graduate study in a school of public health—there are only five of these:

1. The detection and correction of defects as is commonly applied to a cancer prevention program. This has already been shown inadequately in the field of oral hygiene.
2. Mass immunization as used to control diphtheria and smallpox. Unfortunately no one has yet developed a shot which will immunize against dental caries.
3. Environmental sanitation which has been so successful in

preventing typhoid fever and diarrhea in infants. There is no evidence that good sanitation prevents dental disease.

4. The epidemiological approach which has brought results in the control of tuberculosis, e. g., by case finding, ferreting out the source of infection, examining the contacts, hospitalization, isolation, etc. However, no one has shown that dental caries is a communicable condition, so this principle cannot apply.

5. Health education. Ah! here is something that may be worth trying. Ira Hiscock says that health education is the very woof and warp of the modern public health program. Health education is the technique of the hour. Books are written about it. Exhibits and clinics are held on the tools and techniques of health education. The spoken word, the printed word, visual education are all common subjects of discussion in public health circles. So, as the health director teeters back and forth in his swivel chair in his comfortable office in the basement of the city hall, he decides that here is the answer to his difficulties; but his headaches have only begun. Who is going to organize and direct such a program? As I have already indicated one of the major responsibilities of the health administrator is to obtain funds—usually from that group of Shylocks known as the finance committee. The second major responsibility is the selection of suitable personnel. If an adequate budget is available and really good personnel can be employed, the job of the health officer is not too difficult. But where is the administrator going to find the person to organize and direct his mouth health program? Let's go down the list of available people.

a. The administrator himself. If we are agreed that the health officer of our typical city is a physician with training and experience in public health, we can hardly expect him to be an educator also. Of course, he may be able to write an article for the newspaper, or throw together a radio speech which no one listens to, or possibly design an exhibit, but these do not constitute the kind of health education that modifies conduct. If the health officer is familiar with the jargon of the educator—correlation, integration, indoctrination, motivation, core curricula, etc.—he is lucky. To know the meaning of these words is to expect too much! So in his ignorance of dentistry and of education, we can cross him off as the proper person actually to put into effect a program aimed to promote oral hygiene.

b. The school teacher. Certainly a most important cog in the machine, if results are to be realized. Yet one cannot merely say to the teacher—"You teach dental health" and expect her to do it. The teacher has her hands full, certainly. With the art supervisor, the music supervisor, the physical education supervisor, the supervisor of remedial reading, the supervisor of elementary education all putting pressure on her to become a specialist in his

or her particular field, with the effort to readjust techniques, learned ten, fifteen or twenty years ago, to the newer ideas of so-called progressive education, she has her days and nights full. An annual inspirational address by the health commissioner at faculty meeting on the importance of oral health will probably not stimulate the average teacher to go out and acquire her own knowledge about dental disease and its prevention, and then design teaching projects which will intrigue her pupils.

c. The dental profession. Here comes the greatest disappointment of all to the administrator. The sized community which we have under consideration today cannot afford to employ a Frank Cady, a Harry Strasser, or a Guy Milberry. The health officer of a city of from 50,000 to 250,000 population must turn to his local dental profession, and what does he find? Men who have devoted their lives, their education, their experience, their days and their nights to correcting dental defects, to rebuilding broken down teeth, extracting those teeth beyond repair, and making gadgets to replace those extracted. Men conscientiously devoted to the techniques of correcting dental defects, but nary a one able to tell the health officer how to promote oral health or help him organize a mouth hygiene program. I want it understood here and now that no slight is intended on the dental profession by these comments. The dental club in my community has been of the greatest assistance in planning, reorganizing, and developing our present dental service. A spirit of mutual understanding and respect has developed between the dental profession of Newton and the health department that is most satisfying and stimulating. The lack of interest of the dental profession in attempting to promote the field of preventive dentistry I feel is readily explained. Men devote, six, seven, or eight years of their lives to master the knowledge and techniques of dentistry in order to make a living. After the difficult years are past and a practice established, who is going to forsake this established income to go to school again, probably at his own expense, in preparation for a position which might pay him if he is lucky, three thousand dollars a year.

Another difficulty is lack of training facilities. Let us assume that a dentist is crazy enough to want to give up his practice and become a public health dentist, where can he go? The dental schools can offer him little of which he is not already master. He can go to a school of public health and take courses designed to train public health administrators, but he doesn't want to be a public health administrator—he wants to learn how to direct an oral health service. The best he can hope to do today is to take his fundamental training in dentistry, absorb what he wishes of the philosophy of public health administration, dig out on his own initiative a knowledge of educational techniques, roll them all together, and start out on the rocky road of trial and error to organ-

ize his dental health service. The thing I would like to see happen is for A D A to insist that all Grade A dental schools include comprehensive courses in public health dentistry in the undergraduate school, and also insist that the dentist be thoroughly versed in medicine. But our poor health officer cannot wait for this golden day. He still is faced with designing some acceptable program for the prevention of dental disease. So he turns to

d. The dental hygienist, only once again to encounter disappointment. Upon investigation he finds that the average dental hygienist is a high school graduate with one year's training in the art and science of cleaning teeth. Is it reasonable to expect a girl of twenty-one or twenty-two with no knowledge of educational methods to go into a school and teach teachers now to teach oral health? It is not! There are a few hygienists in this country who, not through formal classroom instruction, but through experience have learned educational methods. Such individuals are invaluable in the promotion of a sound dental health program. Another recommendation—that before a girl is allowed to become a dental hygienist, she should be required to complete four years of college work with a degree of B. S. awarded on a major in science and dental techniques and a strong minor in education. With such a training, plus two or three years of experience under supervision, we might be able to develop a very useful public health personnel who know how to do something else besides use disclosing solution, a dental engine, and pumice.

e. The nutritionist. This is a new specialty in public health, but a most important one. The relation of proper nutrition to dental health is recognized by everyone, and the well trained nutritionist can be of great assistance in providing material for a dental health program. The average dentist is entirely too busy or too little interested to attempt to keep posted on the vast amount of literature that is published currently on nutrition. The most I have ever heard a dentist do in regard to nutrition is to tell a mother that proper nutrition is closely associated with dental health and that the child should have a good dietary. But when it comes to outlining a diet on a low budget for an expectant mother, or for the preschool child, which might help to prevent dental caries, the dentist falls down miserably as do most physicians. So the nutritionist becomes a valuable piece of supplementary personnel in an oral health program, but not the person qualified to run the show.

f. The public health nurse—the very backbone of the modern public health program, the liaison par excellence between the health department and the citizens—the individual who brings the benefits close to the beneficiary—indispensable in a dental or any other health program. The public health nurse, once given the few truths that we are sure of regarding dental health, can bring these

lessons to the family as can no other person, because of her éntree to the home. But the nurse, like the nutritionist, is a cog in the machine, not the main spring.

Eventually the health officer decides that he can find no one for the money he has to spend who can come in and set up his oral hygiene program, so he must call upon each type of personnel for the type of service which he or she is trained and qualified to render. The health officer must depend upon his own ingenuity to outline the program, find the personnel, obtain a budget, maintain happy relationships with the dental profession, locate and equip the clinic, contact the school department to enlist the interest and aid of the school administrative staff and the teachers, and multiple other jobs. A local dentist or dentists must be found who can advise about technical matters, conduct the clinic if it is decided to operate one, and to some extent supervise the work of the dental hygienist. A dental hygienist must be employed who has some experience in progressive education, who can stimulate interest on the part of the teachers and provide them with sufficient technical knowledge to carry on a sound teaching program. A nutritionist to work out general instruction in the class-room, with the hygienist, with the teacher, and to the children as they wait in the dental clinic, and to be available for conferences with mothers presenting specific problems. And finally he must see that the public health nurses are instructed in some of the fundamental knowledge of dentistry, so that they may capably carry the message to the homes.

Once the health officer has assembled his oral health staff he may think "Thank God," now I can worry about something else for a while, only to find all of his newly selected personnel sitting on the doorstep the next morning with a million more-or-less questions. Here are a few samples with brief outlines of the answers we have attempted to work out:

(1) Is the health department going to operate a clinic? As I have already indicated, the dental clinic is not the solution to the oral health problem. But if the educational program is going to emphasize the desirability of regular visits to the dentist, it seems ironical to tell children from low income, and relief families, to go to the dentist at least once a year. Let us assume there are five children in a family and the average tariff is three dollars a visit, an annual examination would cost fifteen dollars, which is more than a week's wages on the WPA, which must cover rent, fuel, heat, food, and clothes for the seven members of the family. So it only seems fair that the clinic should offer high-class dental service to those children totally unable to afford the attention of a private dentist. Hence we have a clinic.

(2) Where shall the clinic be located? This, of course, varies with the size of the city, transportation facilities, etc. Our

solution is to have a permanently located central clinic. Although it makes it more convenient for teacher, nurse, pupil, and parent to bring the service to the school, I am not in accord with this idea if it can be avoided. First, because I feel that a central clinic to which a pupil must come places a proper emphasis on the service given. Second, because when the clinic is located in the school it makes the service too available and abuses are liable to grow up. With a central clinic away from the school, an appointment system may be enforced and the private dentist's patient who comes to the school with a toothache does not have the opportunity to sponge free service. Third, the moving of equipment from school to school always causes a loss of time, and with the amount of work which we have to do, not a moment's operating time can be wasted. Fourth, it is possible to have better and more attractive fixed apparatus than portable. This brings up another question:—

(3) What type of equipment shall be purchased? The best, most modern and most attractive unit, chair, cabinet, desk, and furnishings that can be obtained with the funds available. The visit to the clinic should be an educational experience for the child. It should convince him that the dentist is a friend and a scientifically trained individual who wants to help him to better health. It is very difficult to create this impression with children, who are sensitive to their environment, in an old dingy, run-down office with equipment of the vintage of 1900. The children's waiting room should also be light, pleasant, colorful, and designed for children. We asked the Junior High School Art Class to decorate the walls of our waiting room with murals. They selected characters from children's stories, and produced murals which, because they are done by children, interest children. Furniture and tables of proper size and height for pre-school children as well as older children help the youngsters to feel at home. We have also found a gas anesthesia apparatus most useful for certain extractions. I would like to be able to state that an X-ray apparatus is also indispensable; but we have had to get along without one because of lack of funds, so it can be done. But for certain extractions, and for the detection in inter-proximal cavities by bite wing films, an X-ray is most useful.

(4) What social group may be eligible for the clinic? We have limited our patients strictly to those of the lower economic levels whom we are convinced are unable to afford private care, even on a reduced fee basis. I know of several cities who offer free dental service in schools to all—the same as the city offers free education, fire protection, or library facilities. Heaven knows the modern governmental agency tends to foster paternalism enough as it is, without providing free professional service for the correction of dental defects. This is unfair to the dental

profession, to the tax-payer and to the pupil, and certainly should be discouraged. Those of us trying to promote an oral health program need all the help we can get from the private practitioner without offering free service to all who wish to get it, in competition with the private dentist.

(5) What age groups should be included? This is always a debatable question depending upon the funds available, the magnitude of the problem, the type of personnel and many other factors. For the present in our oral health service, we are specializing on the preschool and elementary school child. We feel that if the health department has been able, by the time a child reaches the end of the sixth grade, to provide him with all corrections in his secondary teeth and healthy supporting tissue, the fundamental knowledge of how to care for his teeth, and an appreciation of the importance of oral hygiene, that we have done all that can be hoped for. But it takes a hard-hearted man to turn down a child in junior or senior high school who has a toothache, when he or the school asks for a special privilege because of an emergency. But if the clinic with limited facilities attempts to spread itself too thin —the only result will be that we will never catch up on the correction of defects in the younger children, which to us is more important. If the day ever comes when the volume of candidates for our clinic is below our capacity, we certainly will include the older age groups.

(6) Who is to determine eligibility? We leave this entirely in the hands of the public health nurse. Through her intimate knowledge of home conditions and family income, she is the best judge as to the ability of the pupil to afford private care. In our city, their judgment has never been challenged—except by a few chiselers who had adequate incomes and wanted clinic service for the children so the family could buy a new radio or a new car.

(7) If we are to have a correction program, who is to be responsible for detection of defects—the physician, the nurse, the dentist, the dental hygienist? Frankly, I do not feel that the dental examination made by the physician or the public health nurse is worth the tongue blades that are wasted in the procedure. All that they find are the large yawning cavities. A competent dental examination must be made by some one trained in the technique, using a hand mirror and explorer, able to detect pits and fissures. However, in a recent survey of dental health programs in cities of between 50,000 to 100,000 population the Cleveland Child Health Association reported that of 86 cities, 31 were still employing physicians and nurses for the dental inspection. In our routine physical examinations for 1935 the examining physicians reported 16% of the children with dental defects. Two months later, members of the Newton Dental Clinic agreed to assist the health department with a dental survey, donating their

time, and examining the self same children, they found 86% with dental disease—a 70% discrepancy. Our school physicians are now instructed to pay no attention to teeth. It is only a waste of their time which may be well put in on some other phase of the physical examination. To employ dentists is too expensive and time consuming. We have depended entirely on our hygienist, who examines every child annually.

(8) Shall the hygienist offer prophylaxis to all school children? I see no more reason for the taxpayers to provide a routine annual cleaning of all children's teeth than to require that the school teacher meet each child each morning with soap and a wash cloth and wash his face. But if the prophylaxis is made into an educational procedure for those children who cannot afford private care, it is well worth doing and saves much time for the clinicians when the child comes to the clinic.

It would be possible to go on at considerably greater length asking myself questions and trying to tell you experts the answers that we have tried to work out. Hardly a week passes but that some question of policy, technique, or activity in relation to some phase of the oral health program in my community comes to my desk for consideration and decision. The educational program which is equally, if not more, important than the clinic program with its associated questions and problems, has already been touched—but I must come to those three words so melodious to the audience's ears—Now in conclusion.

We must admit that there is no known procedure which will prevent dental caries and disease of supporting structures. The best we can hope for is to teach children the fundamental principles of mouth hygiene, and detect the defects which are found to occur even under the most favorable conditions in our present state of civilization, as early as possible, so that the useful surface of the tooth may be rebuilt before irreparable damage has been done. Our program has been in full effect only two years and yet we have been able honestly to demonstrate a decrease in serious oral disease. Our survey of 1937 showed 73.9% of the children in need of dental care. This year's examination for the same schools shows 43% in need of oral care,—a step in the right direction, but a long way from our goal.

* * * * *

Tuberculin Tested,—The search for unsuspected tuberculosis among the young people of Los Angeles will be extended to nine senior and eight junior high schools during this school year,

These schools have a combined enrollment of 27,113. The project was originally started in December 1936 and 43.954 students have been tuberculin tested since that time. This is about 58% of the total enrollment of the schools studied. Health News, Los Angeles City School District, December, 1939, p. 9.

THE SCHOOL HEALTH PROGRAM

New York State Association of School Physicians

In presenting this statement of policy of the New York State Association of School Physicians relative to the school health program and the school physician, the committee offers the following points of consideration and discussion:

1. What should constitute health service?
2. What should constitute health education?
3. Should health service and education as described or discussed in this statement be under Education Department leadership, as at the present time, or under Board of Health leadership, as advocated by some health workers?
4. Who should teach health in the schools?
5. What should be the duties of the school physician?
6. Who should make the annual medical examination of the school child?
7. Who should immunize school children against diphtheria and smallpox?
8. Should the schools hold clinics?
9. What should be the compensation of the school physician?
10. How should public money be allocated?

Health service, in procedure and purpose, should aim to determine the health status of the child, to maintain a healthful environment, to promote healthful conditions of pupils and teachers, to give first aid to pupils, teachers and others connected with the school system in accidents and emergencies, to look after the sanitation of the school plant relative to proper heat, light, ventilation, drinking fountains, toilets, and general cleanliness, the prevention of communicable diseases, and all other matters pertaining to the protection and preservation of the health and welfare of the school children.

While health service as outlined in the preceding paragraph teaches health by providing situations in which the child develops proper habits of healthful living, it is not health education *per se.* Health education, like other forms of education, must have an understanding of values and a knowledge of the "why" and "wherefore" of things. It requires a definite program to fit the individual child or group of children into their social relations and school life. Health should not be taught as an isolated subject. The method of teaching health should be blended with other subjects and woven into the very fabric of the child's life.

School health education and school health services are educational in scope and character, and by their very terms are functions of the school and not of a health department outside of the school system. Even the environment and atmosphere of school health is educational and permeated with teaching and learning.

Health service and education are interrelated and intertwined with general education. It is a process dealing with the development of health practices, ideals, attitudes, habits and knowledge conducive to the maintenance or improvement of physical, mental, emotional and social well-being leading to a normal, happy and useful life. From the foregoing it is self-evident that such service and education belong to the school, and the school alone.

The school physician is a health servant and, by reason of the nature of his services, is also a health teacher. He is a doctor of medicine who should possess standard training and special education to fit and qualify him for so important and vital a position as the guardian of the health of our school children.

The principal duties of the school physician should be those of a supervisor or director and consultant of health in the school system of his jurisdiction. In addition he should make, systematically and periodically, such medical tests and examinations of school children as necessity may demand. He should be consulted by his Board of Education and others of the school system in all matters pertaining to the health of the pupils and teachers and the sanitation of the school plant. No new school should be built without his counsel and advice as to the construction of a health room, playground and recreational facilities, seats and desks, and such other items of vital importance pertaining to the health of the school children.

It should also be the duty of the school physician to see that the school health program fits into the public health program. He is also to cooperate to the fullest extent with the family physician, the health officer, and bureaus and agencies of the State Department of Health and the Department of Education, and with all other local or state agencies that may, in a direct or indirect way, contribute to the school health program and the welfare of the school children. It is only through cooperation that great things are ever accomplished, and it is in the school, if anywhere, that it is very desirable to do great things.

It would be best that the annual medical examinations of school children were made by the family or private physician before the child enters school in the Fall. It should be understood, however, that even when the actual examination is made by the family physician, the medical examination should be primarily a part of the educational program, with the school physician playing the important role of determining its needs.

All agree that the school child should receive a complete and thorough annual medical examination. It is well-known that sufficient personnel is not generally provided to give that annual examination to all school children. Therefore, as a matter of importance to the health of the school children,—which should receive first consideration,—the family or private physician should

make this medical examination prior to the child's entering school. Also, by reason of better knowledge of the child's health background, the family physician is better fitted to give the required medical examination. The family physician should not, however, on the strength of knowing the child just give him a casual inspection, and fill out the health certificate. In recording the findings of the examination he should use the health certificate blanks recommended by the State Department of Education, or similar form devised by the local school authorities, and follow its prescribed items religiously. It would be best if the principle of the examination by the family physician were developed through a process of education. Since, however, educational processes are rather slow of realization, an enforced law requiring such an examination before the child enters school would bring speedier accomplishment. It should also be required by statute that every child in the state be immunized against diphtheria and smallpox before entering school for the first time. There is no reason why every child should not start school fortified with physical and mental health and protected by immunization and then left to the school health personnel to guide him in health through his school years and teach him now to value, preserve and maintain his health.

The schools should provide no clinics of any kind, neither for immunization nor for treatment. The schools should not go beyond teaching health habits and practices and seeing that such habits and practices are followed.

The family physician should have the primary responsibility for examination and correction of defects and for immunization. When the family physician fails to secure immunization, the responsibility should fall upon the Health Department to promote or provide immunization. When both fail, then the responsibility, morally at least, is shifted to the school. The child, however, should be protected, regardless, and health teaching be made to harmonize with health practice.

The health education department should be a branch of the school system to disseminate health knowledge in the school and to carry to the home and the community knowledge of how, where, and when one should guard his health and protect himself against all forms of contagion, and mental and physical stress and strain. In addition to conserving health, the aim and aspirations of the entire school personnel should be developed to serve this end.

Besides imparting health knowledge through the medium of health service, there should be a curriculum providing adequately for all forms of desirable health instruction, including that of mental hygiene. The instructor of health education in the secondary schools should be preferably a physician who is specially trained and qualified to teach health, or a special health teacher

meeting the certification standards now set by the New York State Department of Education for Health Teachers. However, as the provision of health instruction by the school physician does not seem practical because of the increased cost this would entail and because school physicians are not at present trained in classroom teaching technique, it would seem that the main teaching of health in primary schools should be by the classroom teacher.

The compensation of the school physician should be commensurate with his qualifications and duties. In cities as well as in rural communities the school physician should receive ample compensation, for which he should return adequate and satisfactory service. Underpayment in anything is false and poor economy, especially so in underpayment of health work. It is very unsound indeed to pay school physicians on a basis of so much per examination. Compensation should be on a salary basis and the school physician should be required to participate completely and constructively in the school health program and not merely make routine medical examinations. The school physician should also be required, as part of his duties, to attend all conferences on school health which take place during the current year, with the Annual Saratoga Conference as a minimum requirement.

With an adequate school health personnel, one of whose duties is to see that no ill children come to school, there is no reason why state aid should not be allocated on the basis of attendance and not on the basis of enrollment.

Respectfully submitted,
COMMITTEE ON THE SCHOOL HEALTH PROGRAM
Michael Levitan, M.D., Chairman
Cyrus H. Maxwell, M.D.
Dean F. Smiley, M.D.

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Trichinosis,—Improperly cooked pork is believed to have been responsible for nine cases of trichinosis which occurred among persons who attended a church supper in Potsdam, St. Lawrence county.

Seven of those affected became ill between November 1 and 15 and two cases developed more recently. All nine had partaken of a pancake and pork sausage supper which was served October 25 to about one hundred persons. All had eaten of the sausage and three stated that they had eaten no other pork recently. The pork from which the sausage was made was obtained from one individual whose pigs are fed raw garbage collected in the village of Potsdam.

Fresh pork, provided it is thoroughly cooked, is a safe food. Thorough cooking will destroy any trichina worms that may be encysted in the meat. Health News, New York State Department of Health, December 11, 1939, p. 205.

SCHOOL HEALTH POLICIES

CHARLES C. WILSON, M. D.*
Director, Health and Physical Education Public Schools, Hartford, Conn.

At the annual meeting of the American School Health Association, an entire afternoon session was devoted to a discussion of a tentative report on school health policies. For the benefit of those unable to attend that session, this brief summary is presented:

The tentative report referred to, is one which has been submitted to many different professional groups and many national organizations interested in school health programs. Among these may be mentioned the American School Health Association, the American Association for Health, Physical Education and Recreation, the Joint Committee on Health Problems in Education of the National Education Association and American Medical Association, the American Academy of Pediatrics, several sections of the American Public Health Association, and the school nursing section of the National Organization for Public Health Nursing. Through the cooperative efforts of committees representing these various organizations, we look forward to the time when a statement of school health policies will be issued jointly by all these health and educational organizations.

After a preliminary explanation of the history and purposes of "School Health Policies" representatives of various groups presented the reaction and suggestions of their organizations to the preliminary report.

Dr. W. W. Bauer of the American Medical Association reported that four sections of the American Medical Association had considered "School Health Policies." These were the section on Preventive and Industrial Medicine and Public Health, section on Laryngology, Otology and Rhinology, section on Pediatrics, and the section on Opthalomology. Many suggestions for minor changes were made by these groups, although each group approved the general principles and policies as outlined.

The school nursing section of the N.O.P.H.N. reported receiving comments that were particularly favorable to the section discussing the health of school employees, and the section which advised school personnel to avoid prescribing treatment. Their report stated "the general consensus of the Executive Committee of the School Nursing Section of the N.O.P.H.N. is enthusiastic endorsement of the policies as a whole." Again, as with other groups, many helpful constructive criticisms were offered.

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* Chairman, Committee on School Health Policies of the Child Hygiene Section of the American Public Health Association.

Miss Gertrude Cromwell, a member of the school health policies committee of the American School Health Association, suggested the report be written deliberately for superintendents of schools as a contribution from school health workers. She also requested that emphasis be given the idea that schools are basically educational institutions, and that programs promoted by schools should contribute directly or indirectly to the education of pupils.

The reactions of the Health Education section of the A.P.H.A. were reported by Dr. Edna Gerken, and later discussed by Dr. William Shepherd and Dr. Clair Turner. This group raised the question of the applicability of the policies as outlined to rural groups and suggested "enlarging upon the educational phases of the activities of the school health program in which dentists, physicians, nurses, nutritionists, and janitors all participate." In addition to other helpful criticisms and comments, the representatives of this section stated, "We agree that a general statement of school health aims and purposes such as we know them at this time, and so drawn that they will merit the endorsement of such agencies as those to which this bulletin has been submitted, is a worthy enterprise. Such a statement would help clarify our purposes, help avoid misunderstandings between the many groups interested in child health, help workers in this field to develop their programs, result in better coordination between groups and individuals working on school health. We find much merit in this bulletin as submitted and believe it represents an important start toward filling a longfelt need."

Dr. John Gordon of the Harvard School of Public Health reported for the Section on Epidemiology of the A.P.H.A., suggesting, among other things, that in certain sections the word "contagious" be changed to "communicable." This section particularly commended the emphasis given to the responsibility of Departments of Health for the control of communicable diseases.

There was much informal discussion, but it is impossible in this brief account to record all the various viewpoints and suggestions. In the opinion of the writer, the general feeling of those attending this session can be summarized as follows:

(1) There is a place and a need for a statement of school health policies which will bring together the viewpoints of various professional groups concerned with school health programs.

(2) There is a desire on the part of many groups and many organizations to cooperate in developing and guiding school health programs.

(3) The tentative statement on school health policies submitted to these various groups has met with rather general approval, and many helpful suggestions for its improvement have been received.

(4) There is need for a printed copy of the report so that it

may be made available for widespread consideration and discussion.

(5) There is need for a presentation of the content of the report and an interpretation of its meaning at a subsequent meeting of the American School Health Association.

The report on school health policies is to be presented to the Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association at its meeting in February, and it is hoped arrangements can be made for printing the tentative report. This report can then be analyzed and reviewed by all groups in all parts of the country.

It is particularly desired that the tentative material be studied by all educational groups having a part in the school health program, and for this reason, copies have already been sent to a number of different departments of the National Educational Association. The American Association for Health, Physical Education and Recreation is the department of the N.E.A. most concerned with school health policies, and it is gratifying to know that several of the section meetings of that organization will include on their next program a discussion of school health policies.

After further studies it is hoped a final report will be possible and that this final report will be issued jointly by health, education and medical organizations.

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Hard-of-Hearing Children,—The New York State Commission to Study Facilities for the Care of the Deaf and the Hard of Hearing announces a case-finding project to discover children under six years old who have defective hearing. The project will be carried out in Columbia County under the direction of Dr. Marion F. Loew, a member of the staff of the State Department of Health and of the Commission, in cooperation with the County Health Commissioner, Dr. Louis Van Hoesen, Hudson, and with the Health Department's Divisions of Maternity, Infancy and Child Hygiene and Communicable Diseases. Journal of the American Medical Association, November 11, 1939, p. 1819.

Sex Education,—A special number of the Journal of Social Hygiene is devoted solely to Sex Education in the Schools. The first article shows how a private school in Newton, Massachusetts, approaches the teaching of Sex Education. The second article shows how Sex Education is carried through grades 1 to 12 in the public schools of the District of Columbia, and the third article shows how teacher interest in Sex Education is being aroused in New York City. All health workers interested in Sex Education in the Schools should read this issue. Journal of Social Hygiene, Vol. 25, October, 1939. No. 7. By the American Social Hygiene Association, 50 West 50th St., New York City. Abstracted by Richard W. Weiser, M.D.

SAVING THE SIGHT OF SCHOOL CHILDREN

PAULINE BARTLETT
Teacher, Sight-saving Class, Roanoke, Virginia

In every state and nation there are many handicaps affecting many children. Some of these may be treated generally or together, but the visual handicap is a peculiar problem within itself, requiring in every instance special and separate care for the correction, alleviation, and treatment of the handicapped, and for educational and social training.

The problem which confronts educators dealing with children having seriously defective vision—yet not totally blind—is to make possible an education, first, for those who possess too little vision to profit by the traditional school procedure, and, second, for those who because of progressive eye difficulites would jeopardize both their health and sight by being forced to meet the same standards and use the same equipment as the unhandicapped child.

To provide schooling for these children, twenty-seven states have established sightsaving classes, the aims of which are threefold: First, to educate pupils with the least possible eyestrain; second, to teach them to conserve the vision they already possess, and, third, to give them some vocational guidance.

The method of detecting and selecting pupils who require the facilities of these classes is an important phase of our sightsaving work. At the present time candidates are discovered by an oculist in his private or clinic practice; by the school or county nurse; and by the regular classroom or sightsaving teacher. In general, children having visual acuity of 20/70 or less in the better eye after refraction are referred to the sightsaving supervisor. In addition, the following are recommended as potential candidates:

(a) Children having four or more diopters of myopia;

(b) inactive, subsiding, or regressive cases, such as intestinal or phlyctenular keratitis, optic neuritis, trachoma, etc., in which some irritation may be present, providing the approval of the attending physician is given;

(c) any child, who, in the opinion of the ophthalmologist, would benefit by assignment to a sightseeing class.

Once a candidate has been recommended, there appears the problem of a satisfactory method of testing mentality. It is assumed that all children assigned to sightsaving classes have normal mentality, but the most conscientious and experienced person has difficulty in determining whether the child's sense of inferiority, timidity, and retardation is due to poor vision or to a subnormal mental condition. It is of paramount importance, therefore, to ascertain this accurately, if the high standard of the classes is to be maintained.

Although special attention is naturally given to the physical environment of the feeble-sighted child, yet ideal conditions for him should be the same as for any other child. Too little attention has been given in the past in all classrooms to adequate natural and artificial lighting and elimination of glare, and one of the accomplishments of this special group of classes is making regular teachers and those interested in educational work "eye conscious." This added emphasis on eye conservation will undoubtedly have far-reaching results in minimizing the number needing this special type of instruction.

One must not get the idea that sightsavers are "a thing apart". Just as the ideal physical surrounding should be the same for the child with normal sight and for one with impaired vision, so do the same educational standards and same curriculums apply to both groups, with the exception that in the sightsaving classes changes are made in the *method* of instruction. The marked differentiation between the two groups is that in the special classes more attention is given to eye care, and special equipment is provided. This equipment consists of books in large, clear type; heavy, soft lead pencils; unglazed paper with wide ruling; maps without detail; typewriters in large type; Hygeia-For-Sight chalk, and other materials usable or adaptable to weak eyes.

Since these pupils are enrolled in both the regular and the sightsaving classes, schedules must be worked out whereby vision is concerned without losing touch with regular classroom procedure. Teachers of both classes must cooperate, and special rules must be worked out if full benefit is to be derived. These rules, though simple, mean a great deal to a pupil, and he is usually careful to carry out the following instructions:

(1) Take the same part in oral recitation as does the child with normal vision.

(2) Do no written work in classrooms unless permission has been given to write from dictation.

(3) Work with light coming over the shoulder or from the back.

(4) Never try to read from the blackboard unless standing directly in front of the board or at a proper distance.

It is the work of the sightsaving teacher either to read or to outline all lessons, using the large print typewriter. Individual attention is an absolute necessity, as the natures of the visual difficulties are varied.

The enrollment in these classes tends to vary in different states, but the Virginia Commission for the Blind limits the number to twelve. When we consider that seven grades, on an average, are taught in each class and that the amount of necessary individual instruction is, therefore, large, it is evident that this number gives as heavy a load as one teacher can efficiently carry.

In my particular class, nine grades are taught, at present, and some vocational guidance is being given.

It is interesting to visit these special groups and observe the various and helpful activities. Think of children ranging from seven to seventeen years of age learning how to type on absolutely blank keys, and eventually mastering not only the specified typing exercises, but dictation as well. Some pupils, especially boys, prefer basketry and rug-making. Others like printing, clay modeling, wood and soap carving; while the creation of dolls, doll clothes, and hot-dish mats has proved popular with the girls. This is the most enjoyable phase of class-work to the pupil. His original ideas are often beautifully carried out. Competition is keen and each child takes much pride in his particular project. Recently one of my pupils won first prize in a citywide handiwork exhibit in basketry.

It is, indeed, gratifying to know how many sightsaving pupils are able to return to regular grades after eyestrain has been relieved by special care. While the eye condition remains the same in some cases, it is very seldom that the condition grows worse. This is undoubtedly due to our insistence, in this state, that every child have an examination annually, and that progressive cases have an examination twice a year.

Solving the problem of the visually handicapped child residing in rural communities and small villages is difficult. At present we are helping a number of children scattered throughout the state whose homes are inaccessible to a sightsaving class. Although our efforts to aid these children fall far short of what we would desire, we are furnishing cleartype books, sightsaving paper, and maps without detail, and are working with the regular teachers in an effort to secure as much special attention for the child as possible, and we are advising as to the most beneficial way of handling such cases.

In 1925 there were 260 classes in the United States. According to our latest information, there are 589 full-time and five part-time classes, representing two hundred cities, twenty-seven states, the District of Columbia, and Hawaii. While we justly feel a sense of gratification for what has already been accomplished, we realize that only the beginning has been made. It is estimated that one in every five hundred of the school population has some defect of sight which seriously handicaps him in the regular school work, but has too much vision to enter a school for the blind. Figuring on that basis, one may easily see that many more sight-saving classes are essential to the health and future of our children.

Interest in this work has become almost universal. The National Society for the Prevention of Blindness is doing excellent work, and each year goes forward on more and better methods of aiding the handicapped. The Journal of the National Education Association of the United States, December 1939, p. 263-264.

BLOOD PRESSURE STUDIES ON BASKETBALL PLAYERS IN OLEAN, N. Y.*

DR. C. A. GREENLEAF,

Director of School Health Service, Olean, N. Y.

For the benefit of those who are not familiar with the game of basketball it might be well to state the situation which has caused this discussion. Formerly, all plays after a basket was made started from the center of the court, allowing a period of rest.

In 1937, with the change of rules, the ball is placed in play at once after a basket is made. [1]

Let me give two quotations which have recently come to my attention. The first one from a leading newspaper of December 17, 1939: "Basketball, like ice hockey,—another fast growing winter sport—is popular because of its speed and drama. A 40-minute basketball game averages 36 minutes of action. Compared with this, football and baseball seem almost as slow as chess." This same edition estimated 80,000,000 spectators for the game this season and more than 1,000,000 high school players. An analysis made last year, relative to football, which might apply to the above quotation is interesting. West of the Rockies football is played in four quarters of 15 minutes each. An observer at several western games, including the Rose Bowl games, states that the average action in these games is 18 minutes of play.

The second quotation is one by a well-known college basketball coach. He says—"The speed and hard driving of today's basketball quickly burns up a lot of energy."

After several seasons of observing a conservative type of basketball I was astonished, last year, at the change in the attitude of the gallery. Our medical service is extended not only to our own team, but also to the visiting team. Very rarely do visiting teams bring medical supervision. Because of this fact I have had opportunity to observe the condition of our own players as well as that of opponents. It was easy to note the attitude of the gallery beginning with last season's basketball. A marked change in the tempo is apparent. One might almost say—frenzy, hysteria, a concession to the gambling spirit, or a Roman Holiday attitude, was apparent. It was easy to see the cause thereof, namely, a change of playing rules, indicating that the change in rules was more to stimulate attendance and interest

* Read before the New York State School Physicians' Association at Syracuse, N. Y., December 26, 1939. (1) References—Journal of School Health, February, 1938, p. 49, p. 51; May, 1939, p. 147; November, 1939, p. 285; January, 1940, p. 17.

than any consideration for the adolescent boy. Then began the blood pressure study which follows:

The New York State High School Athletic Association require, in their insurance protection, a thorough physical examination with special emphasis on the heart findings. Insurance companies as the Metropolitan, the New York Life, and others, in their instructions to medical examiners, estimate the blood pressure, based on a report of 187 individuals, as follows : In the age group of 15 to 19 there was an average systolic of 119. Average diastolic of 85.

In the examination of 239 high school boys, with the same age distribution, I have found the average blood pressure, before participating in any program of sports, to be—average systolic, 118; diastolic, 80. Note the similarity in these two groups, 119 over 85 and 118 over 80.

With a desire to learn if there was any effect on the blood pressure of basketball players, readings were made on 32 participants through last year's season and the following findings were recorded, through and at the end of the season. Seven of these boys showed a gradual increase in pressure from 120 to 138 systolic and 81 to 94 diastolic.

Twenty-five showed a lowering of from 112 to as low as 90 systolic and 76 to 61 diastolic. These figures are the summary taken from several pages of records.

During the season we have observed many boys "panting" undoubtedly from over-exertion. Occasionally one lying on his back "gasping" for breath. True, a good coach will replace players and will give reasonable care, but with a close game there will be little change in the lineup. Especially is this latter situation true in smaller schools where close competition allows little chance to use poorer players. In six games played during the past month, I find that in no game was there over 10 players used and six, seven, eight and nine was the rule. Also the schedule is tough.

Seven football games is the maximum allowed, under State Department regulations, during a season. Sixteen basketball games are allowed, and our physical director says it is necessary to "double up." In our schedule, Friday and Saturday games, in succession, occur on two occasions. I believe those of you who have city schools under your care, with grammar leagues, do not allow the use of the new rules in their games. I have stated facts and findings. I am not going to state any conclusions. I will leave this for you to consider.

I wonder how many enlarged hearts are resulting?

I wonder if blood pressure readings mean anything in these boys?

I personally believe the rules should be changed again, either as formerly, or at least more protection given to these boys.

I would not object to my son playing football.

I would object to his playing basketball under the present rules.*

* * * * *

Center Jump Return Likely—Lew Andreas, Basketball Coach at Syracuse University, who has kicked around this basketball game nearly two decades, figures the time is coming when separate sets of rules will be drawn for colleges and high schools to get away from some "horse-race" effects.

"This modern game, with the center jump eliminated," the veteran coach of Syracuse basketball said, "is like watching a table tennis match. The ball is always going back and forth with no stop. It's great to watch, but it puts a severe strain on the youngsters. Physicians have told us that."

"So it's altogether likely," Andreas went on, "that the center jump will be legislated back into high school ball to slow up the game somewhat and relieve this pressure on the youngsters. It isn't so bad for college players, largely because they're more fully developed. In addition, there is rigid physical examination in most colleges. Buffalo Evening News, January 3, 1940, p. 20.

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Cage Rules Revised,—Recognizing the physical demands of jumpless basketball, Buffalo, New York, high school athletic officials took steps two years ago to reduce the hazards of the modern style of play, discussed recently by Syracuse Coach Lew Andreas.

By a poll of 11 to 13, the high school coaches voted on December 30, 1937, to make the following changes in intercollegiate rules to govern basketball competition between Buffalo secondary schools:

1. Allow two instead of one minute rest periods between the first and second and third and fourth quarters. The regulation 10-minute intervals between halves remain.

2. Allow 90 instead of 60 seconds for all "requested" time-out. Each team is permitted five such time-outs per game. Buffalo Evening News, January 3, 1940, p. 20.

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*This year another change has been adopted, lengthening the fair area back of the basket two feet on each end of the court without moving back the baskets. This makes much less frequent the going out of the ball over the end line and, therefore, reduces greatly the opportunity for brief "breathing spells" which the shorter court made possible. Those in control of secondary school education owe a distinct duty to pupils and parents to make this game less strenuous. They should remember that the game should be made a boys' sport not a town spectacle.—Editor.

EDITORIALS

"Youth is trained only when it is trained to earn a living."—
(James E. Brown, President, John Brown University)

There are at least four types of training needed to earn a living, and it is the duty of the school to give each of these—informational, vocational, social, and health training.

Health training definitely and vigorously impinges upon each of the three others. In fact it is difficult and well-nigh impossible to separate health training entirely from these others or to separate them from health training.

A person may fail in his efforts to earn a living because he lacks a sufficient amount of information to make his efforts effective. He may fail because he lacks skill or aptitude or both for the particular vocation in which he finds himself. He may fail because he lacks social adjustment—he does not get on well with his fellows in the industry or vocation, or does not get on well with others with whom his position places him in contact. Or he may fail because his physical or mental health training has not been adequate for success in carrying the physical or mental load necessitated by his vocation.

A person may be trained to organize, to administer, to teach, or to create. He will succeed in none of these fields unless mental stability and right attitudes toward his work, his fellow-workers, his family, and his community make possible adequate functioning in the job he may be trying to do. He will succeed in none of them unless he has built physical health, and can maintain it through health habits, health ideals, health attitudes, and health reactions to his environment that place him on the job each day an effectively and vigorously functioning unit of mind and body.

Skills in pleasures and in vocation, endurance to carry on mentally and physically at top effort for long hours, and stamina so as to enjoy mental and physical recreation after the day is done are essential to success, to happiness, and to continued health.

C. H. K.

* * * * *

School health services are intimately concerned with safety education, hoping by means of training for greater safety that the number of accidents, with all their expense, pain, disability, and death, may be diminished. There is one group of accidents—largely perhaps because they happen at a time when schools are not in session—to which seemingly little school attention is given. These are wholly unnecessary accidents due to the explosion of fire crackers, torpedoes, toy cannons, and the like used to "celebrate" the Fourth of July.

Twenty-five years ago it seemed as though the battle against this danger had been largely won, and the Journal of the Ameri-

can Medical Association in 1916 stopped publishing the statistics. Unfortunately, during the last few years, there has been a great increase in fireworks injuries. In 1937 there were reported 7,205 such injuries and 20 deaths, in 1938 the figures rose to 7,933 with 18 deaths, and in 1939 there were 5,560 injuries with 13 deaths.*

The improvement last year was due very largely to a marked improvement in the figures from Pennsylvania. In 1938 there were reported in that Commonwealth 1,702 injuries with six deaths. In 1939 there were only 85 injuries reported from that area and no deaths. Whom should the parents of Pennsylvania thank for this remarkable improvement? Praise goes to the legislature and to those aroused people who stimulated the lawmakers into action. A simple law, prohibiting the sale of these potentially deadly playthings, and the enforcement of that law without fear or favor, is all that is needed.

Practically the only people who profit by the sale of these materials are the small group of manufacturers and the relatively few retailers who sell them. Many of these latter are not established business concerns, but fly-by-night roadside sellers. It seems to us that—even on the improved basis of 1939—5,560 accidents and 13 deaths is too high a price to pay for their profits.

It is not an answer to this plea for safeguarding our children to say that no one is compelled to buy fireworks. Children, and parents, being what they are, these things are bought, and in murderous amounts.

School health workers, and all other educators, should spare no efforts in trying to cause the legislatures, which are meeting this winter or spring in a number of states, to pass laws—effective before another Fourth of July is upon us—that will make illegal the sale, exposure, or advertising for sale of fireworks. C. H. K.

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Health Aims Cited—Committee reports heard last night at a general session of the ninth annual meeting, American Academy of Pediatrics, revealed many links between that body of child specialists in medicine and the general public.

A Committee on Co-operation with Non-Medical Groups and Societies works through state sub-chairmen to co-operate with the Summer Round-Up divisions of the Parent-Teacher Associations. It is preparing a brochure outlining minimum standards for health examinations of normal children, on which it will base a sound-motion picture.

It is also working to increase the number of "well-child conferences," which, it declares have benefits to which both parents and general practitioners need to be educated.

"Its aim is the education of parents to want and demand

* Fourth of July Injuries. Journal A. M. A., January 6, 1940, p. 39.

such examinations for their children, and the education of general practitioners in how they should be done," the committee report states.

"Since pediatricians care for only 2.5 per cent of the children of the country it is apparent that a wide field of operation is available for Academy activity." The report expressed the hope that out of the committee work "should grow a comprehensive plan for increasing and improving periodic health examinations of normal school children throughout the nation."

A Committee on School Health and School Health Education* recommended that the medical profession bear responsibility for the character of the service in schools, warned against misrepresentation of the school service by promising more than can be delivered, and recommended seeking rather to progress toward the ideal than to attempt too much at once.

"Progress toward the best health supervision should be founded on education," the report said. "The physician in the schools should have time to develop a program of education for attitudes of desire and purpose that will create a demand for the best medical service."

The committee urged that children most apparently needing medical care have the benefit of follow-up work and guidance in using the community's medical facilities. Planning to obtain the maximum service for the available budget, the committee reported, is most effectively carried out through a medical administrator, with the support and advice of representatives of organized medicine."

A Committee on Medical Supervision of Camps is making a study of the need and type of physical examinations of children in camps, the selection of camps, the supervision of camp diets, and suggestions which will assist in avoiding fatigue.

A compilation of "Pertinent Facts on Contact Infection," for distribution to lay persons as well as physicians, is a contribution of the Committee on Contact Infection. The committee promotes measures to lessen the likelihood of infection of children with diseases acquired through contact with their adult associates, and calls public attention to the need for periodic health examinations of adults, such as servants, teachers, etc., intimately associated with young children.

A Committee on Mental Hygiene is pressing an extensive program under the general headings of adequate training in the medical schools, adequate training of the pediatric intern and the resident pediatrician, and preparation of a series of articles on mental health in the Journal of Pediatrics. It recommended that papers on mental health have a more important place on pediatric programs, especially at the national meetings. From the Cincinnati Enquirer for Friday, Nov. 17, 1939.

* Harold H. Mitchell, M. D., Chairman.

ABSTRACTS*

Nervous Teachers,—In the first place, teaching is hard work. Studies of fatigue have demonstrated that "it is not the volume of work but the amount of mental alertness required that fatigues." Granted that the work is fatiguing in spite of short hours, then free time should be used largely for rest and recreation. But too many teachers regard free hours only as a chance for greater accomplishment. University study and organization activities, which should afford wholesome mental stimulation if taken with discretion, are overdone to such an extent that teachers receive little benefit from them.

Women teachers seem to have failed too, to face the fact that they are wage-earners just as men are, and as such cannot carry on all the mechanical work of running a home. Those who attempt it lead hectic lives. They rise early, make the beds, prepare a hasty breakfast (if any) and dash to school. After school they do the marketing (food which can be quickly prepared and is therefore more expensive and less wholesome), get dinner, wash the dishes and do other household chores often until bedtime.

Only the martyr instinct which must be predominant in women could keep any one on such a program day after day; especially in a metropolitan city like Los Angeles, where competent domestic help can be secured to fit almost any income. Domestic help seems to be an item which many teachers consider an inordinate extravagance. Listening to informal discussions among teachers, one would be led to believe that no one but a teacher is really competent to do housework. One hears much discussion of that awful winter "when Cousin Minnie lived with us and promised to do the work for her board and room" (sympathy to Cousin Minnie!). And one sees teachers exhausted at the end of the year because of free hours crowded with home duties.

One eastern city now requires women teachers maintaining a home to employ domestic help. How much better if teachers, instead of being regimented into this, would face the problem intelligently, so that home instead of being a burden and a worry would be a peaceful sanctuary after a hard day. They would do well to cultivate the nonchalance of the working male who considers it his right to come home from work to a well ordered house, with dinner waiting for him on the table; who leaves the table with a godlike calm which can come only from complete indifference to dinner dishes. Can this be one reason why "nerve tension is less common among men teachers"?

Modern teachers make a definite effort to have a hobby. Most of them have learned that they think, talk and live their work too

much and they try by having friends outside their own profession to leave the classroom, mentally as well as physically. Many of them indulge in outdoor sports, swimming, tennis or gardening; surely a good thing for sedentary workers.

But a great many teachers still shy away from the periodic health examination which would reveal physical factors contributing to nervous conditions. A physician who examines teachers states that she finds them most reluctant to take sufficient time off when ill. When informed of some condition such as high blood pressure, the patient often says when told she should take an extended leave, "I would rather die with my boots on." Such a teacher ignores the fact that she may be facing not death but years of helpless invalidism; or if not that, nervousness so intense as to make her unfit to handle children. For such economies teachers pay in the gold coin of health and the price is too high.

That harassed look one sees on Teacher's face at Easter time does not necessarily mean a poorly ordered personel life, however. It may come from pressure within the school. Physicians who examine teachers are familiar with the nervous breakdown caused by the wrong kind of supervision. A principal or supervisor who works with her teachers, who understands them and appreciates them, who by her guidance and encouragement leads them to evaluate and improve their own work does much for her school, her teachers and herself.

Unfortunately this concept of supervision is not universal. There are still schools where teachers are driven, not led. One principal who took her own high blood pressure to school with her and called it efficiency, industry and ambition, sat out by the key box every morning. As each teacher entered she was pounced on much as a gopher is pounced on by a cat. With never even a good morning preceding it, she was given a stream of detailed instructions for that day and a long list of complaints regarding the day before.

Each teacher reacted to this in her own way. There was the Stolid Teacher, who stood and took it as the shipwrecked mariner takes the pounding surf. He can stand it, for he knows it will stop; but he knows he is going to be cold, wet and numbed the rest of the day. There was the Sensitive Teacher, who tried in vain to get in a defensive conversational wedge, then went to her classroom with a feeling of failure and a case of jitters, which is no help to any teacher. There was the Spitfire Teacher, who left with set lips, muttering under her breath. The known score for this school was one severe heart attack and one nervous breakdown. The complete results probably could not be measured, for pressure on the teacher reacts inevitably on the child.

These things and many others which are obviously present, contribute to nerve tension among teachers. But until a scien-

tific study is made, prevention to any great extent will be impossible. The necessity for such a study is indicated by the fact that in spite of increasingly higher health and educational standards (which should bring teachers who are fit to teach into the profession) nervous disorders are more common in this than in other professions. It is time to regard this "occupational neurosis" as one of the health hazards of teaching. It is time to study it as such, so that the teacher's mental health may be guarded by modern prophylactic measures. Marie M. Wilson in Los Angeles City School District Health News, December, 1939, p. 4, 5.

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Vaccination—Interest in smallpox vaccination has been revived with the introduction of the intradermal technique of vaccination and by recent investigations of immunity to smallpox particularly in the Middle West, and by the recent outbreak of smallpox in upper New York State the past year. Dr. Donnally has an article of interest in this field. He studied the results of revaccination after two to three years in children primarily vaccinated with: (a) culture virus (Rivers), (b) children primarily vaccinated with calf lymph virus. Dr. Donnally feels from his experience that it seems unlikely that culture virus will be successful against smallpox with the certainty and dependability that calf lymph virus has long enjoyed.

He discovered that substantial immunity was lacking in all but two (5.5%) of 36 children who had had successful takes with a culture virus from two to three years before revaccination. This was in marked contrast to 34 children who had successful takes from two to three years before with calf lymph, 25 (73.5%) of whom had good immunity.

Dr. Charles Armstrong in discussing Dr. Donnally's paper said that in view of this report he believed that health officers and general practitioners who wished an agent for general use would do well to stick to old established preparations, and let these new preparations wait until they have been thoroughly tested by such control tests as Dr. Donnally reports. Smallpox Vaccination of Infants, Harry H. Donnally, M. D. Journal of the American Medical Association, November 11, 1939, p. 1796. Abstracted by G. M. Wheatley, M. D.

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Student Accidents*,—Schools with 478,000 enrollment reported 1,565 accidents during September. The accident rate per 100,000 student days was 17.8. Last year the September rate for reporting schools was only 14.7.

Combined reports from all schools show the kinds of accidents and the grades in which increases occurred. The general increase suggests the need for special analyses in each school system to determine basic reasons for the upward trend and what can be done to check it.

* Alvan C. Battey, Statistician, National Safety Council, from Safety Education, December, 1939, p. 166.

While all classes of accidents increased, those occurring in school buildings showed the least change. The accident rate was 1.9, compared with 1.7 a year ago—an advance of only 12 per cent. No grade below the sixth recorded a rate as high as last year. The advance was concentrated almost altogether in the high school, where the rate approximately doubled.

The school grounds rate increased sharply—from 3.4 to 4.1, or 21 per cent. The advance was more general than for school buildings, but even so, some grades below the sixth had rates no higher than last year. In all high school grades but the ninth there were increases of 27 up to 100 per cent.

Accidents on the way to or from school occurred a little more frequently than last year, but the change was well within the limits of normal fluctuations. Increases and decreases in the rates were scattered all the way from the kindergarten to the twelfth, following no definite pattern.

The home accident rate was 22 per cent above September last year—4.5 compared with 3.7. The brunt of the increase was borne by elementary school pupils, for increases and decreases among high school students just about cancelled out. The largest increases were recorded by the first, second, third, sixth and seventh grades.

Reports of those accidents which occur away from school or home have been increasing steadily for several years—probably due both to more complete reporting and to actual increase in number. This year the advance amounted to 24 per cent compared with September, 1938, and the rate stood at 6.3, the highest September rate so far recorded. Only two grades, the tenth and the eleventh, escaped an increase, while in the first and second grades the rate went up about 50 per cent. and in the fifth grade it nearly doubled.

It is clear from these figures that every grade suffered a considerable increase in one or more types of accidents. In general, the elementary school pupils had considerably more non-school accidents than a year ago, and the high school students reported appreciably more school property accidents. For all accidents in total, the largest increases in rates were observed in the first, second, sixth, ninth, eleventh and twelfth grades.

In past years it has been usual to find high accident rates accompanied by low average severity of injury. This is true of the September record. On the average the September accidents resulted in only 2.4 days' absence from school. In contrast, the average for the whole year is close to three days. However, it may be pointed out that in September, 1938, absence amounted to only 2.2 days per accident, or less than the present average despite a lower accident rate.

Seven deaths were recorded during the month by reporting school systems. Only one was a motor vehicle accident, the victim being a sixth grade girl who was playing on the highway when struck. The car was concealed by a hill almost until the moment it struck her. Two boys were drowned while swimming; one a sixth grade student, the other in the eleventh grade. There were three deaths from home accidents. A second grade child died of a cut, a seventh grade boy fell from a swing, fracturing his skull, and an eighth grade boy received fatal burns in a gasoline explosion. The seventh death was that of a sixth grade boy who tripped over his dog and fell to the pavement, receiving fatal head injuries.

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Acne—Acne is all too frequently a distressing problem of the adolescent. School health services discover this physical condition very frequently. In a report by Dr. William Schmidt of a study of the health of pupils in a New York City High School, 1937-'38, skin conditions were found in 29% of a representative sample group of the school. He states that the chief defect was acne.

It is the opinion of many that acne is often accompanied by clinical evidence of endocrine disease, and that this association may have etiological significance. Dr. Lynch made a study of acne in order to determine how frequently this skin condition is associated with other clinical phenomena. The incidence of acne among a group being routinely examined as new admissions to school was 57% of the boys showing some degree, and girls—46%. The acne at the time of the examination of these students was most severe in the boys. The median age of the boys in the group was 19 and the girls 18. Dr. Lynch felt that the higher incidence among boys may be due only to the age of the group, since acne developed at a later age in boys than in girls. Acne was studied in relation to body build and to basal metabolism. In summing up his study Dr. Lynch was unable to point out any clinical evidence which would aid in establishing an etiologic relationship between acne and endocrine imbalance. He thinks that there is some relationship to abnormal thyroid function based solely on the changes in basal metabolic rate and not on clinical signs. In severe cases there is some association with menstrual irregularity. With reference to acne of mild or moderate degree, it is hardly possible to say more, says Dr. Lynch, than that it accompanies the process of puberty and sexual maturation.

A Clinical Study of Acne in University Students, F. W. Lynch, M. D. Journal of the American Medical Association, November 11, 1939, p. 1792. Abstracted by G. M. Wheatley, M. D. * * * * *

Air Conditions—Requirements for a pleasant and invigorating atmosphere are stated:

During the winter season the air velocity below 20 feet per minute tends to give a feeling of stuffiness. Air movement should

be variable rather than uniform and monotonous. Outdoors one is braced by the changing play of the wind and, likewise, the variations of air movement which may be encountered indoors exert an invigorating effect. When ventilation is obtained through open windows the air movement is likely to be variable, but with some mechanical ventilating systems the air movement is undesirably monotonous. In mechanical installations, the air inlets should be so designed and the velocity of discharge so arranged that suitable eddying currents are set up. The relative humidity of the air should not exceed 70 per cent and should preferably be much below that point. The average temperature of the walls and other solid surroundings should not be appreciably lower than that of the air and should rather be warmer. The combination of cold walls and warm air often causes a feeling of stuffiness. The air at head-level should not be distinctly warmer than that near the floor, and the head of the occupants should not be exposed to excessive radiant heat, the air should be free from objectionable odors. Subjective Impressions of Freshness in Relation to Environmental Conditions, T. Bedford and C. G. Warner. Journal of Hygiene, London, September, 1939, p. 498. Abstracted by H. H. Mitchell, M. D.

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Food Poisoning—Cream-filled pastries have again been responsible for an outbreak of severe food poisoning, the fourth in which this concern has been involved.

Late in the afternoon of November 30, the health officer of Troy, N. Y., reported 11 cases of violent gastroenteritis among residents of that city. All gave a history of having consumed, shortly before the onset of symptoms, chocolate eclairs which, in every instance, had come from one bakery. Investigation of the bakery disclosed that one of the pastry chefs had an infected finger with a pustular discharge which may have been the source of infection.

The eclairs responsible for the illnesses had been distributed on November 28 and 29. A list of all stores receiving cream-filled products from the bakery was secured and the dealers notified by telephone to discontinue their sale. Public health nurses were sent to these establishments to collect the remaining pastries and to ascertain the names of customers who had already purchased the suspected products so that patrons might be warned against eating them and so that a list of those already ill might be obtained. Through these follow-up procedures, further cases are being discovered, nine additional cases having been traced through December 2, making a total of 20 known cases. Newspaper and radio warnings against cream-filled pastries made by the particular bakery were issued throughout the Capital District.

The three previous outbreaks (See Health News, June 28, 1937) in which this bakery was involved occurred, respectively,

in April, 1936, with six cases due to chocolate eclairs; in May, 1937, with 10 cases attributed to strawberry cream pie and cocoanut cream pie; and in June, 1937, with 13 cases which were also traced to strawberry cream pie and cocoanut cream pie.*

Scrupulous cleanliness is essential in each step of the preparation of cream-filled pastries. The personal hygiene of bakers and of others who have occasion to handle such products is of primary importance. Under no circumstances should any person who has lesions, such as boils or sores on his hands or forearms, be permitted to engage in work of this nature. The bakery should be so constructed and screened that rats, mice, other vermin and insects will be excluded.

The custard used in cream-filled pastries is an excellent medium for the development of numerous species of bacteria. To avoid the growth of such organisms, custard filling should be used soon after preparation and not held for any considerable time before the shells are filled. The display of pastries on counters in restaurants and bakeries affords a splendid opportunity for the growth of contaminating micro-organisms. All cream-filled products should be consumed shortly after they have been prepared, and in the interim should be stored in a refrigerator—never in a warm room. Chapter XIV, Regulation 5, of the State Sanitary Code provides: "All perishable food or drink shall be kept at or below 50 degrees F., except when being prepared or served. This shall include all cream-filled pastries." Health News, New York State Dept. of Health, December 11, 1939, p. 204.

* How long is this particular bakery to be allowed to menace the health of the people? How many offenses of this sort is permitted them before something drastic is done about it? If "a dog is permitted one bite," how many assaults upon the public is a bakery permitted?—Editor.

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Pasteurization,—Evidence of the sanitary importance of pasteurization is found in the experience with milk borne communicable diseases during 1938. In the United States 30 outbreaks, involving 1,244 cases of illness and 21 deaths, were attributed to infected raw milk supplies and dairy products. Not one case of communicable illness was traced to *pasteurized* milk, so far as official records disclose. This is an important point since practicall yall of the milk supplies in the larger cities of the United States are pasteurized.

Of the 30 epidemics traced to contaminated raw milk supplies, 11 were typhoid fever; 6, septic sore throat; 5, gastro-enteritis; 4, scarlet fever; 2, dysentery; 1 each of diphtheria and food poisoning. Fresh sweet milk was at fault in 27 of the outbreaks and buttermilk, ice cream and cheddar cheese in one each. Milk Borne Epidemics in 1938. Illinois Health Messenger, December 15, 1939, p. 142.

The Officers and Governing Council of the American School Health Association extend to our President, Dr. Charles L. Outland, sincere sympathy for the loss of his mother. Mrs. Outland died December 27, 1939, at the age of seventy-three years.

REVIEWS

School Health Problems. *Laurence B. Chenoweth, A.B., M.D.,* and *Theodore K. Selkirk, A.B., M.D.* F. S. Crofts & Co., New York, 1940, 419 pp. Price $3.00.

This text is designed to "acquaint students of education, teachers in service, and others interested, with the broad general nature of health problems in schools. Its goal is to develop health consciousness among teachers and pupils to as great an extent as possible."

After tracing the history of the school health movement, five chapters, some eighty-seven pages, are devoted to growth in children. There follows considerable material on the physical examination of children and the educational aspects of such examinations. There is a chapter on the control of communicbale diseases, devoted largely to a discussion of immunization. This seems more technical than is necessary for the essential information of teachers and school administrators. Two chapters are devoted to those factors in school house construction and housekeeping as have to do with eyesight conservation, and with hearing. Special classes for exceptional children are discussed, and there are also chapters on tuberculosis in the school child, on mental hygiene, on physical education, and on accidents, on the sanitation of the school, and on teaching health. A brief outline on school health administration by Dr. Richard A. Bolt adds to the value of the text. Numerous references to other authority adds greatly to its value.

There seems to be more emphasis on problems that might be considered largely medical than is necessary in a text devised for the information of teachers and other laymen. The temptation of persons in the school and in other fields having contact with children to give treatment is already too great. One having information tends almost inevitably to use it.

This is an extremely informative text, valuable to those instructing teachers and administering schools. It should be a part of the library of normal schools and teachers colleges, as well as of school administrators. Charles H. Keene, M.D.

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Ways to Community Health Education,—By *Ira V. Hiscock,* and others. The Commonwealth Fund, New York, 1939. Pp. 306. $3.00.

This is an effort to answer the question, "How can the health worker get his message over to the public in such a way as to influence favorably the attitudes, acts, and habits of that public as related to matters affecting health?" It is, therefore, a text on methods.

After discussing the basis for public health education, which for effectiveness rests on four feet—the official health department, the professional group, the school agencies, and the individuals making up the public—the author discusses the various community groups, and then suggests numerous ways, such as meetings, newspapers and other printed matter, the radio, exhibits, and motion pictures which may be used as vehicles.

Careful analysis is made of means for promoting special projects, such as promoting sanitation and safety, campaigns against diphtheria, tuberculosis, and syphilis.

Reference bibliographies at the end of chapters add greatly to the value of this book as an aid and guide for those setting up or administering a program of public health education.

This is a valuable text containing much valuable information. It is interestingly written, and it emanates from men and women who have deep knowledge and practical experience in the fields they discuss. Any health officer, health educator, school administrator, teacher, or leader of a special health or sanitation campaign will profit greatly by reading it carefully. Charles H. Keene, M.D.

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MEETINGS

American Association for Health, Physical Education, and Recreation, Chicago, April 24-27, 1940.

American School Health Association and American Public Health Association, Detroit, October 8-11, 1940.